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ABSTRACT

One of six introductory modules in a 22-module series designed to train vocational education curriculum specialists (VECS), this guide is intended for use by both instructor and student in a variety of education environments, including independent study, team teaching, seminars, and workshops, as well as in more conventional classroom settings. Part I, Organization and Administration, contains an overview and rationale, educational goals and performance objectives, recommended learning materials, and suggested reference materials. Part II, Content and Study Activities, contains the content outline arranged by goals. Study activities for each goal and its corresponding objectives follow each section of the content outline. Content focus is on goals and functions of curriculum management, the involvement of different vocational education personnel in curriculum management, and a rationale for the need for vocational education curriculum specialists. Part III, Group and Classroom Activities, suggests classroom or group activities and discussions keyed to specific content in the outline and to specific materials in the list of references. Part IV, Student Self-Check, contains questions directly related to the goals and objectives of the module, which may be used as a pretest or posttest. Part V, Appendix, contains suggested responses to the study activities from part II and responses to the student self-checks. (HD)

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VOCATIONAL EDUCATION CURRICULUM SPECIALIST

VECS

Module 2:

Roles of Vocational Educators in Curriculum Management

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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STUDY GUIDE
(TEACHING/LEARNING MODULE)

CE 009 131

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-Study Guide-

Module 2

ROLES OF VOCATIONAL EDUCATORS IN CURRICULUM MANAGEMENT

This document is one of a series of teaching/learning modules designed to train Vocational Education Curriculum Specialists. The titles of all individually available documents in this series appear below:

INTRODUCTORY MODULES

1. The Scope of Vocational Education
2. Roles of Vocational Educators in Curriculum Management
3. Current Trends in Vocational Education
4. Organization of Vocational Education
5. Legislative Mandates for Vocational Education
6. The Preparation of Vocational Educators

CORE MODULES

1. Important Differences Among Learners
2. Learning Processes and Outcomes
3. Applying Knowledge of Learning Processes and Outcomes to Instruction
4. Assessing Manpower Needs and Supply in Vocational Education
5. Laying the Groundwork for Vocational Education Curriculum Design
6. Selecting Instructional Strategies for Vocational Education
7. Derivation and Specification of Instructional Objectives
8. Development of Instructional Materials
9. Testing Instructional Objectives
10. Fiscal Management of Vocational Education Programs
11. Introducing and Maintaining Innovation
12. Managing Vocational Education Programs
13. Basic Concepts in Educational Evaluation
14. General Methods and Techniques of Educational Evaluation
15. Procedures for Conducting Evaluations of Vocational Education

SEMINARS AND FIELD EXPERIENCE MODULE

(Seminars in Authority Roles and the Curriculum Specialist in Vocational Education, and Leadership Styles and Functions of the Curriculum Specialist in Vocational Education; field work in Project Design and Administration, Operation of School Programs, Evaluation of School Programs, Educational Research and Development, and State, Regional, and Federal Program Supervision)

INSTALLATION GUIDE

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PREFACE

Who is a vocational education curriculum specialist? The answer to this question is not as simple as it might appear. A vocational education curriculum specialist is likely to work in many different capacities, including, but not limited to: instructor, department chairperson, dean of vocational-technical education, vocational supervisor, principal, state or local director of vocational education, and curriculum coordinator.

The specialist is, perhaps, more identifiable by his/her responsibilities, which include, but are not limited to:

- planning, organizing, actualizing, and controlling the work of an educational team performed to determine and achieve objectives.
- planning, organizing, and evaluating content and learning processes into sequential activities that facilitate the achievement of objectives.
- diagnosing present and projected training needs of business, industry, educational institutions, and the learner.
- knowing, comparing, and analyzing different theories of curriculum development, management, and evaluation and adapting them for use in vocational-technical education.

This teaching/learning module is part of a set of materials representing a comprehensive curriculum development project dealing with the training of vocational education curriculum specialists. The purpose of this two-year project was 1) to design, develop, and evaluate an advanced-level training program, with necessary instructional materials based on identified vocational education curriculum specialist competencies, and 2) to create an installation guide to assist instructors and administrators in the implementation process.

The curriculum presented here is, above all else, designed for flexible installation. These materials are not meant to be used only in the manner of an ordinary textbook. The materials can be used effectively by both instructor and student in a variety of educational environments, including independent study, team teaching, seminars, and workshops, as well as in more conventional classroom settings.

Dr. James A. Dunn
Principal Investigator and
presently Director,
Developmental Systems Group
American Institutes for Research

ACKNOWLEDGEMENTS

The Vocational Education Curriculum Specialist Project was a comprehensive development and evaluation effort involving the contribution of a large number of people: project staff, curriculum consultants, a national advisory panel, and a number of cooperating colleges and universities. This wide variety of valuable inputs makes it difficult to accurately credit ideas, techniques, suggestions, and contributions to their originators.

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James L. Blue	*RCU Director, Olympia, Washington*
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Rita Richey	*Wayne State University*
Bryl R. Shoemaker	*Ohio State Department of Education*
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The project would not have been possible without the cooperation and commitment of the field test institutions listed below.

California State University, Long Beach
California Polytechnic State University, San Luis Obispo
Consortium of California State University and Colleges
- California State University, Sacramento
- California State University, San Diego
- California State University, San Francisco
- California State University, San Jose
- California State University, Los Angeles

Iowa State University
University of California Los Angeles
University of Northern Colorado

Overall responsibility for the direction and quality of the project rested with James A. Dunn, Principal Investigator. Project management, supervision, and coordination were under the direction of John E. Bowers, Project Director.

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Part I:

Organization and Administration

PART I
ORGANIZATION AND ADMINISTRATION

Guidelines

This study guide has five major sections. Each section contains useful information, suggestions, and/or activities that assist in the achievement of the competencies of a Vocational Education Curriculum Specialist. Each major section is briefly described below.

PART I: ORGANIZATION AND ADMINISTRATION

PART I contains an Overview and Rationale, Educational Goals and Performance Objectives, Recommended Learning Materials, and Suggested Reference Materials. This section will help the user answer the following questions:

- How is the module organized?
- What is the educational purpose of the module?
- What specifically should the user learn from this module?
- What are the specific competencies emphasized in this module?
- What learning materials are necessary?
- What related reference materials would be helpful?

PART II: CONTENT AND STUDY ACTIVITIES

Part II contains the content outline arranged by goals. The outline is a synthesis of information from many sources related to the major topics (goals and objectives) of the module. Study activities for each goal and its corresponding objectives follow each section of the content outline, allowing students to complete the exercises related to Goal 1 before going on to Goal 2.

PART III: GROUP AND CLASSROOM ACTIVITIES

The "Activities-Resources" column in the content outline contains references to classroom or group activities and discussion questions related to specific content in the outline. These activities and discussion questions

are located in PART III and are for optional use of either the instructor or the student. Both the classroom activities and discussion questions are accompanied by suggested responses for use as helpful examples only--they do not represent conclusive answers to the problems and issues addressed. Also contained in the "Activities-Resources" column are the reference numbers of the resources used to develop the content outline. These reference numbers correspond to the numbers of the Suggested Reference Materials in PART I.

PART IV: STUDENT SELF-CHECK

PART IV contains questions directly related to the goals and objectives of the module. The self-check may be used as a pre-test or as a post-test, or as a periodic self-check for students in determining their own progress throughout the module.

PART V: APPENDICES

Appendix A contains responses to the Study Activities from PART II, and Appendix B contains responses to the Student Self-Check. The responses provide immediate feedback to the user and allow the module to be used more effectively for individualized study. They have been included in the last part of the module as appendices to facilitate their removal should the user wish to use them at a later time rather than concurrently with the rest of the module.

Approximately 20 hours of out-of-class study will be necessary to complete this module.

Overview and Rationale

"Curriculum" is a common but somewhat vague term used by both educators and laymen and means many different things to different people. The lack of systematic thinking about curriculum planning and management creates confusion as to what it is, how it's done, and who does it. The purpose of this module is to clear up some of this confusion--to help the vocational educator develop a conceptual framework that spells

out the important elements in curriculum management and describes their relationship to each other. If the dual purpose of vocational education is to meet the occupational competency needs of individuals and the manpower needs of the community and nation, then vocational educators, particularly curriculum specialists, should have a clear understanding of the vehicle through which these goals might be achieved.

The first part of Module 2 deals with the meaning of curriculum management, the goals which direct it, and the six elements that give it structure and form. It describes five different approaches to curriculum planning in relation to the selection and organization of curriculum content.

The module then explores the functional roles of vocational education personnel involved in curriculum management, with special emphasis on the role of the vocational education curriculum specialist. All educational personnel have some degree of responsibility in curriculum management, and this module attempts to demonstrate the extent and specific nature of the involvement of these personnel.

Most educational agencies today recognize the importance of and the need for personnel with the ability to apply sound curriculum management theories to real situations. According to Evans, increasing predilection exists for personnel who specialize in curriculum development. The vocational education curriculum specialist may be employed under different job titles: dean of occupational education, local director for vocational education, department or division director for vocational education, supervisor for occupational instruction, or principal or assistant principal of vocational-technical schools. Regardless of the title, however, it is the administrator's or supervisor's expertise in curriculum management that has undoubtedly enhanced his or her employability. This module suggests that the curriculum specialist should have knowledge of and practical experience in the major functions of curriculum management, including: (1) conducting needs assessments; (2) planning program goals and objectives; (3) selecting and organizing content and activities; (4) coordinating educational personnel; (5) implementing curriculum plans and programs; and (6) researching and evaluating vocational programs.

Goals and Objectives

Upon completion of this module, the student will be able to achieve the following goals and objectives:

GOAL 2.1: ANALYZE AND SUMMARIZE THE GOALS AND FUNCTIONS OF CURRICULUM MANAGEMENT IN VOCATIONAL EDUCATION.

- Objective 2.11 Define curriculum management.
- Objective 2.12 Identify the six general functions of vocational education curriculum management.
- Objective 2.13 Identify specific activities for each function of curriculum management.
- Objective 2.14 Identify four approaches to curriculum selection and organization for vocational education programs.

GOAL 2.2: EXPLAIN THE INVOLVEMENT OF DIFFERENT VOCATIONAL EDUCATION PERSONNEL IN CURRICULUM MANAGEMENT AND PRESENT A RATIONALE OF THE NEED FOR VOCATIONAL EDUCATION CURRICULUM SPECIALISTS.

- Objective 2.21 Identify nine different types of personnel involved in curriculum management.
- Objective 2.22 Estimate the degree of involvement for each type of personnel in curriculum management.
- Objective 2.23 Describe the major roles of each type of personnel in curriculum management.
- Objective 2.24 Identify the particular contributions a vocational education curriculum specialist can make in curriculum management.
- Objective 2.25 Describe the advantages and disadvantages of concentrating the responsibility for a vocational education agency's curriculum management functions under a curriculum specialist.
- Objective 2.26 Identify three ways in which curriculum management differs in a community college, a comprehensive high school, and an area vocational-technical school.

Recommended Materials

1. Evans, Rupert N. Foundations of Vocational Education. Columbus, Ohio: Charles E. Merrill Publishing Company, 1971.

2. Thompson, John F. Foundations of Vocational Education: Social and Philosophical Concepts. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1973.

Suggested References

1. Bruner, Jerome S. The Process of Education. New York: Vintage Books, Random House, Inc., 1963.

2. Evans, Rupert N. Foundations of Vocational Education. Columbus, Ohio: Charles E. Merrill Publishing Company, 1971.

3. Fryklund, Verne C. Analysis Technique for Instructors. Milwaukee, Wisconsin: The Bruce Publishing Company, 1965.

4. Gillie, A.C. Principles of Post-Secondary Vocational Education. Columbus, Ohio: Charles E. Merrill Publishing Company, 1973.

5. Good, Carter V. Dictionary of Education. New York: McGraw-Hill Book Company, 1973.

6. Larson, Milton E. Analysis for Curriculum Development in Vocational Education. Columbus, Ohio: ERIC Clearinghouse, The Ohio State University, 1969.

7. Leighbody, G. B. Vocational Education in America's Schools: Major Issues of the 1970s. Chicago, Illinois: American Technological Society, 1972.

8. O'Kelley, George L., Jr. "Approaches to Curriculum Planning" in Law, Gordon F. (Ed.) Contemporary Concepts in Vocational Education. Washington, D.C.: The American Vocational Association, 1971.

9. Strong, Merle E. and Schaefer, Carl J. Introduction to Trade, Industrial, and Technical Education. Columbus, Ohio: Charles E. Merrill Publishing Company, 1975.

10. Taba, H. Curriculum Development: Theory and Practice. San Francisco: Harcourt, Brace and World, 1962.

11. Thompson, John F. Foundations of Vocational Education: Social and Philosophical Concepts. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1973.

12. Wenrich, R. C., and Wenrich, J. W. Leadership in Administration of Vocational and Technical Education. Columbus, Ohio: Charles E. Merrill Publishing Company, 1974.

13. Young, Robert C., Clive, William V., and Miles, Benton E. Vocational Education Planning: Manpower, Priorities, and Dollars. Research and Development Series. No. 63. Columbus, Ohio: The Center for Vocational and Technical Education, The Ohio State University, 1972.

Part II:

Content and Study Activities

PART II
CONTENT AND STUDY ACTIVITIES

Goal 2.1

Content Outline	Activities-Resources
Goal 2.1: Analyze and Summarize the Goals and Functions of Curriculum Management in Vocational Education.*	* Classroom Activity 1, in Part III, is designed to introduce this module to the students.
A. Definition of Curriculum Management: A broad-based term used to describe all the necessary activities for designing, installing, and evaluating the learning activities and training experiences of students under the supervision of the school. The relationship between "curriculum" and "management" is clearer when viewed in two parts:	
1. Curriculum - a general overall plan of the content or specific materials and activities of instruction that the school offers the student by way of qualifying him for graduation, certification, or for entrance into a professional or a vocational field (5).	(5) Dictionary of Education.
2. Management - a distinct process consisting of planning, organizing, actualizing, and controlling the work of others, performed to determine and accomplish objectives (5). In other words, curriculum management is both a product and a process, with a number	

of critical components. This module is primarily concerned with analyzing the process of curriculum management by examining its main functions and investigating the role of vocational education personnel in those functions.

B. Major Functions of Curriculum Management: For the purposes of this module, and to simplify a comprehensive and complex topic, the major functions of curriculum management have been broken down into six components: needs assessment, design and development of programs, selection and organization of program content, coordination of human resources, program implementation, and research and evaluation of programs and processes.

C. Needs Assessment as a Function of Curriculum Management: In general, each stage in the development of vocational education began with the persistence or emergence of a social condition. Most of these conditions revolved around the different manpower needs of the local community, the region, and the nation. Vocational education fundamentally is based upon a manpower policy which states that employment should be available for all who want it--in jobs that reflect individual choices and skills and that provide an adequate income. Education and training that is capable of developing each individual's projective potential with the end result of full-time employ-

ment should be provided. Manpower policies involve individuals, employers, labor organizations, and state and local governments (11).

The needs of individuals or communities, around which vocational education programs are developed, can be assessed in a number of ways, through the use of:

1. a local advisory committee;
2. data from local or national employment services;
3. manpower forecasting offered by the U.S. Department of Labor;
4. community surveys;
5. surveys of existing training programs and educational personnel.

One of the most important outcomes of needs assessment is to translate all assimilated data into concrete and conclusive needs that justify the development of a program.

The four most commonly used techniques for yielding information about future manpower needs are:

1. Employer surveys - used for determining local or regional needs. This technique identifies a representative sample of occupations for the area; employers are surveyed and asked to determine their current and future manpower needs.
2. Extrapolation of trends - attempts to forecast future needs on the basis of past

(11) Foundations of Vocational Education: Social and Philosophical Concepts, p. 20. See (2) Foundations of Vocational Education, pp. 113-114, 231-232, for supplementary material.

trends. The validity and reliability of this technique decreases the further into the future it is extended (13).

3. Econometric techniques - used by the Bureau of Labor Statistics. This technique yields a national ten-year demand analysis based on projections of population, labor force, productivity, consumption, and overall output.
4. Job vacancy - occupational outlook approach. This technique is a modification of the econometric model. It results in a priority listing of jobs with apparent shortages that the educator must analyze in terms of probable persistence, capacity to train people for such jobs, and benefit/cost return (13). *

(13) Vocational Education Planning: Manpower, Priorities and Dollars, pp. 25-30.

* See Discussion Question A in Part III.

D. Program Design and Development as a Function of Curriculum Management: After needs have been established, the first step in designing a vocational education program is to specify the goals and objectives.

1. A vocational education program includes all courses (subject matter and interrelated learning/training experiences) within one field of study, such as business education or industrial education, that lead students to achieve prespecified goals and objectives in a systematic manner. A program consists of two or more courses (5).

(5) Dictionary of Education. Also see Cook, Fred S., and Richey, Rita C., "A Competency-Based Program for Preparing Vocational Teachers." Detroit, Michigan: Division of Teacher Education, Wayne State University, undated.

2. Program goals may be broad and comprehensive, but a statement of objectives should be more specific, describing both the kinds of student behavior expected upon completion of the program and the content or context to which that behavior applies.
3. Complex objectives must be stated analytically and specifically so that no doubt exists as to the kind of student behavior expected or to what the behavior applies.
4. Objectives should be realistic and should include only what can be translated into curriculum, classroom, or laboratory experience (10).

(10) Curriculum Development: Theory and Practice, pp. 199-205. See (2) Foundations of Vocational Education, pp. 2-6, for further elaboration on this topic.

E. Selection and Organization of Vocational Education Content, Training, and Materials as a Function of Curriculum Management: Selection and organization are central decisions in curriculum management. Such decisions are difficult because of lack of consensus on the criteria for decision making, increased specialization in technology, and continuous increase in the complexity of subjects and skills to be taught. In vocational education selection and organization of content is based upon the ultimate goal of developing occupational competency. *

* See Discussion Question B in Part III.

1. Development of Occupational Competency: For vocational education programs the major consideration for content selection and organization is the inclusion of

sufficient materials and learning experiences to develop occupational competency. Occupational competency includes: (a) job skills; (b) occupational flexibility; (c) understanding of job relationships; (d) expectations of job relationships; (e) social compatability (11).

(11) Foundations of Vocational Education: Social and Philosophical Concepts, pp. 152-155. See (2) Foundations of Vocational Education, pp. 29-47, 52-54, for related information.

A number of approaches to selection and organization of content and activities in the vocational education curriculum may be employed. Some of these approaches are summarized in this section.

2. Integrated Approach: An integrated approach to selecting and organizing curricula was one of the earliest techniques developed in vocational education. This approach calls for the accumulation of a cross section of the subject matter in a given field and then its organization into a teaching sequence. The sequence is usually divided into units of instruction, and moves from general information and skills to more specific ones. This approach is widely used in general education as well as in vocational education (11).

(11) Foundations of Vocational Education: Social and Philosophical Concepts, pp. 152-155.

3. Job Analysis Approach: This analytical approach obtains information about specific occupations from workers, supervisors, or occupationally qualified teachers in order to determine content for programs designed

to prepare workers for these specific occupations. Job analysis is the most common approach to developing vocational programs and is often used in combination with other curriculum techniques (6).

(6) Analysis for Curriculum Development in Vocational Education, p. 4.

Any occupation that involves fundamental procedures can be analyzed for instructional purposes. Most occupations in which there is human achievement, and in which experience must be accumulated for further achievement, can be analyzed; in addition, tasks and skills can be organized so that they can be taught in an orderly and systematic way (3). *

(3) Occupational Analysis: Techniques and Procedures, p. 4.

4. Cluster Approach: Following a modified analytical procedure and an occupational analysis of each job, this approach groups occupations according to the degree of similarity in knowledge and abilities required of the worker. Specific job entry skills for a group or cluster of occupations are taught.

* See Discussion Question C in Part III.

The cluster approach is a method of preparing youth for entry into a broad family of occupations rather than one specific occupation. Most vocational curriculum plans utilizing this approach also make provisions for specific training for youths who are ready for it (11).

(11) Foundations of Education: Social and Philosophical Concepts, pp. 160-173. Also see (7) Vocational Education in America's Schools, pp. 52-65, and (6) Analysis for Curriculum Development in Vocational Education, pp. 3-44.

The fifteen clusters identified by USOE include: (a) agribusiness and natural resources; (b) business and office; (c) communications and media; (d) construction; (e) consumer and homemaking; (f) environment; (g) fine arts and humanities; (h) health; (i) hospitality and recreation; (j) manufacturing; (k) marine sciences; (l) marketing and distribution; (m) personal services; (n) public services; (o) transportation (12).

(12) Leadership in Administration of Vocational and Technical Education, pp. 188-189.

5. Functions of Industry Approach: Basically this approach prepares workers for functions performed within a specific industry. It focuses on the purposes of the industry rather than on the activities performed by an individual. Functions in a typical industry might include sales, service, processing, office practice, public relations, purchasing and transportation. The approach reasons that workers need different areas of competency to perform well in any single function, and that these areas of competency should form the basis of curriculum (11).

(11) Foundations of Vocational Education: Social and Philosophical Concepts, pp. 155-171.

6. Concept Approach: Jerome S. Bruner developed this approach, which emphasizes the importance of the structure of subject matter. Each subject has its own peculiar structure. The curriculum of a subject should be determined by identifying the fundamental principles or understandings

giving structure to that subject. This approach reasons that learning is, to a great extent, dependent upon mastery of the structure of the subject matter. In order for a person to be able to recognize when an idea can or cannot be applied to a new situation, he must understand the general nature of the phenomenon with which he is dealing. The more fundamental or basic an idea (learning) is, the greater its applicability to new problems (1).*

(1) The Process of Education, pp. 18-31. Also see (11) Foundations of Vocational Education: Social and Philosophical Concepts, pp. 171-173.

* See Discussion Question D in Part III.

7. Curriculum Management in the Future: Some vocational educators predict that the functions of industry approach and the concept approach will play an important role in curriculum theory in the future because they can permit emphasis on occupational experience, including specific and general skill development (11).*

(11) Foundations of Vocational Education: Social and Philosophical Concepts, pp. 173-174. Also see (7) Vocational Education in America's Schools, pp. 52-65.

* See Discussion Question E in Part III.

F. Coordination of Human Resources as a Function of Curriculum Management:* The responsibility for curriculum management lies with both vocational administrators and faculty. All vocational education personnel are involved to some degree in one or more aspects of curriculum management. Because it is a shared responsibility among personnel with different functions, the need for a coordinator is clear. Personnel involved in curriculum management include:

* Students should begin Part I of Classroom Activity 3. See Part III.

1. administrators, supervisors, curriculum specialists;
2. teachers, including teacher coordinators;
3. specialists in vocational counseling and research and evaluation;
4. community groups or individuals for example advisory committees, labor organizations, and employers.

Coordination of human resources is also referred to as "personnel administration." Any or all of the following activities may be included in this function:

1. recruitment, selection, and employment;
2. orientation and continuing personnel development;
3. provision of personnel incentives, rewards, and a classification systems;
4. appraisal and evaluation of personnel;
5. management of personnel system to provide for grievance procedures, affirmative action program, substitute faculty policy, system feedback (12).

Large school districts may have a personnel division to handle many of these management and maintenance activities; nevertheless, many of these tasks remain a responsibility of local administrators in vocational education.

(12) Leadership in Administration of Vocational and Technical Education, p. 213. See (2) Foundations of Vocational Education, pp. 256-263, for related information.

G. Program Implementation as a Function of Curriculum Management: Implementing programs and thus ensuring the fulfillment of their plans, requires conceptual ability, interpersonal skills, budget and fiscal skills, and technical skills. The task involves a sharing of responsiblities by administrator and teacher and includes:

1. planning strategies for organizing personnel with specific competencies into working teams;
2. creating a developmental strategy of participation or involvment;
3. translating plans and ideas into practice by providing necessary materials, facilities, and teachers;
4. evaluating resources and allocating funds (10).

(10) Curriculum Development: Theory and Practice, pp. 454-491.

H. Research and Evaluation as a Function of Curriculum Management:* Accountability and progress based on educationally sound information and observations are vital ingredients for developing and maintaining vocational education programs.

1. Research in vocational education had a tremendous resurgence following the recommendations made by the Panel of Consultants on Vocational Education (1961-1962). As a result of these recommendations, the Vocational Education Act of 1963 provided that ten percent of the funds appropriated be

* Students should complete Classroom Activity 3, Part 1, before going on to the second goal of the module. See Part III.

spent for research in vocational education. This legislation vastly improved the resources available to researchers in this field (7).

2. The object of research is to generate new knowledge that will provide validation (or negation) of current practices, methodology, administrative procedures, and materials and facilities.
3. Utilization of research findings by professionals needs to be increased. Dissemination and utilization strategies for research findings should become a major concern in the system of curriculum management.*
4. Evaluation:* The main purpose of evaluation is to provide information for decision making.
   a. Formative evaluation is the ongoing and continuous process of analyzing in-house procedures, methods, practices, and materials. Formative evaluation can be designed to provide information for administrators, teachers, specialists, and advisory committees.
   b. Summative evaluation measures outcomes and the extent to which predetermined goals have been achieved. It is usually terminal, the end evaluation of an entire process or program.

(7) Vocational Education in America's Schools, p. 95.

* See Module 11 for a complete statement on diffusion. Also see Discussion Question F in Part III.

* You may wish to direct your attention to the wrapup activities or to the Activities for Additional Credit, for the purpose of encouraging special student presentations for the benefit of the class.

Both formative and summative evaluation are important to those who make decisions about curriculum (10).*

(10) Curriculum Development: Theory and Practice, pp. 310-343. See Evaluative Research: Strategies and Methods. Pittsburgh, Pa.: American Institutes for Research, 1970, pp. 1-20, for related information.

* See Discussion Question G in Part III.

I. Study Activities

Based on your reading of the content outline and any additional references as suggested, complete the following activities.

1. Use three different sources for locating a definition of curriculum. Write each definition; then write your own definition of curriculum management.

2. Based on the reading you have done and your own experience, list what you feel are six major components of curriculum management. If you feel there are more than six, list those also.

3. Identify at least three specific activities under each of the components of curriculum management that you listed in Activity 2. Under which function of curriculum management do these activities fall? List each activity under the appropriate function of curriculum management.

4. What is the purpose of vocational education curriculum?

5. How would you define occupational competency?

6. Describe two approaches to curriculum selection and organization in vocational education.

7. What two approaches to curriculum would you predict to be of great importance in the future of vocational education curriculum planning?

8. What specific pre-planning tasks could or should be performed prior to designing particular courses and units for a new occupational training program?

9. What are some of the curriculum management components that you feel have been neglected in this brief presentation for Goal 2.1?

10. Below are listed the six major functions of curriculum management, "a" through "f." Following the list of major functions are five statements describing a topic or concept of curriculum management. For each state-

ment, decide which major function corresponds with that statement by placing the appropriate letter (a, b, c, d, e, or f) in the space provided.

a. needs assessment
b. design and development
c. selection and organization of content
d. coordination of human resources
e. implementation
f. evaluation and research

_____ To develop an adequate use of the many available talents and resources, it is necessary to practice the principle of "levels of involvement." Not every type of competency is relevant at every point of curriculum development. Not everyone needs to participate in everything.

_____ Training for effective installment of a new unit may be accomplished through intensive workshops--a series of inservice training devices to develop the necessary content background, the requisite teaching skills, and an understanding of the theory underlying a new program.

_____ Information is usually needed regarding the prerequisites students do or do not need to have for specific areas of instruction, what levels of concepts and skills they can handle, as well as which aspects of learning need special attention.

_____ The often amorphous nature of curriculum development makes it difficult to decide which dimensions are important to pursue, which relationships of facts and ideas should be submerged, and which ones should stand out. One problem, then, is to decide the focus of the curriculum.

_____ A tradition of American education has been to classify desirable learning outcomes in terms of behaviors that people in our society need to master, even though this practice has resulted in vagueness which combines several categories of behavior in one statement and makes evaluation very difficult if not impossible.

Examples of such statements are provided by the historic document, "The Imperative Needs of Youth:"

1. All youth need to develop salable skills and those understandings and attitudes that make the worker an intelligent and productive participant in economic life.
2. All youth need to develop respect for other persons, to grow in their insight into ethical values and principles, and to be able to live and work cooperatively with others.
3. etc.

(See Appendix A for possible answers.)

Content Outline	Activities-Resources

Goal 2.2: Explain the Involvement of Different Vocational Education Personnel in Curriculum Management and Present a Rationale of the Need for Vocational Education Curriculum Specialists.*

* Because Goal 2.2 of this module is concerned with roles, it would be helpful and interesting to students to hear from people who are employed in these roles. You may wish to schedule such resource people for classroom discussions. See Classroom Activity 2.

Curriculum decisions are a chief concern of middle management, who are aided in making them by inputs from all other levels of personnel in vocational education. Middle management consists of administrators, supervisors and coordinators, or specialists like curriculum coordinators. All vocational education personnel have, to some degree, administrative, supervisory, and coordinating responsibilities and are therefore involved to varying degrees in curriculum management (12).

(12) Leadership in Administration of Vocational and Technical Education, Chap. 9.

A. Vocational Administrator:* For purposes of this module, the term "vocational administraton" will refer to local directors, supervisors, directors of occupational divisions for community colleges, principals and vice principals of vocational-technical schools.

* Students should begin Classroom Activity 3, Parts 2 and 3.

1. In educational institutions, the terms "administration" and "supervision" include to varying degrees a management function.
2. Administrators and supervisors are the educational management personnel ultimately responsible for the process and product of the curriculum.

3. Administrative participation in any of the six functions of curriculum management may be indirect in that administrators delegate authority for tasks to other personnel. Because of the responsibility factor, however, administrative involvement is necessarily extensive.
4. In order to coordinate effectively the human and physical resources necessary to operationalize programs, administrators must have insight, understanding, and skill in each area of curriculum management described in the first section of this module.
5. Management of fiscal and physical planning demand a good part of an administrator's time.

B. Curriculum Specialist: The task of curriculum management has grown so large that educational agencies are beginning to seek the services of curriculum specialists. The specific management functions of the curriculum specialist vary according to the individual setting (2).

1. The specialist has a great deal to contribute in the comprehensive high school setting. In a typical high school the principal has the responsibility for all curriculum and instructional management, including vocational education. A vocational curriculum specialist, operating as part of the administrative team that assumes

(2) Foundations of Vocational Education, pp. 235-244. For projected need for vocational education personnel, including curriculum specialists, see pp. 236-237.

day-to-day responsibility for the six major functions of curriculum mnagement, has the potential for vastly improving school programs for employment-bound youth (12). (12) Leadership in Administration and Technical Education, Chap. 9.

2. In a community college setting, the curriculum specialist is usually the dean or assistant dean of occupational education. although people occupying such positions may delegate specific curriculum management functions to their division or department directors, the final responsibility for curriculum decisions cannot be delegated.
3. In an area vocational school or technical institute, the problem of curriculum management is less complex since this single-purpose institution has a faculty and administrative staff who are all working to prepare youth for employment. Nevertheless, the task is the same and involves the same six curriculum management functions identified in the first part of this module (12). (12) Leadership in Administration of Vocational Technical Education, Chap. 9.
4. Because the management of curriculum for occupational education is sufficiently complex in larger schools and requires personnel with special knowledge and skills, any school or college wishing to provide effective occupational programs should centralize the responsibility for curriculum management in one person (12). (12) Leadership in Administration of Vocational Technical Education, Chap. 9.

C. Teachers: Teachers are an important part of the curriculum management team, having the major responsibility for organizing the learning environment and controlling the quality and standards of that environment.

1. The major role of the teacher in curriculum management lies in the selection, organization, and implementation functions.
2. As classroom managers, teachers control inputs necessary for the learning process. They make the final decisions on instructional priorities, as well as on directing and coordinating specific learning activities (12).
3. The more competent the teacher, the greater the likelihood of teacher involvement at all levels of curriculum management. Often the only curriculum a teacher takes seriously is one he has helped to plan (7).
4. All preplanning efforts are useless if they are not translated into actual classroom experiences. The teacher is the only one who can make this happen.
5. The teacher is also one of the most valuable sources of information for the evaluation function of curriculum management. Evaluation, in turn, influences program design and development.

(12) Leadership in Administration of Vocational Technical Education, Chap. 9.

(7) Vocational Education in America's Schools, p. 7 and pp. 142-152. See (2) Foundations of Vocational Education, pp. 235-263, for supplementary material.

D. Research and Evaluation Specialist: Many state boards for occupational education have recognized the value of centralizing the research

and evaluation function and have provided a specific division within their administrative structures to carry out these responsibilities. Research Coordinating Units (RCU) have been established on a regional and sometimes a statewide basis.

1. As a result of the Vocational Education Act of 1963, states became responsible for allocating ten percent of their funds to research. Research specialists are usually located at the state level and are responsible for coordinating research and evaluation activities on a statewide basis.
2. These specialists often work with graduate students to conduct locally-oriented vocational studies. They also assist local vocational directors on specific program evaluation procedures.
3. In school and college settings, the responsibility for research and evaluation is usually shared somewhat haphazardly by administrative personnel. (Very limited funds are spent on the study of institutional operations.) (4)
4. Gillie suggests that the purpose of evaluation is to point out the merits and shortcomings of the vocational program and to use these findings as a basis for making decisions about the future operation of the curriculum. The evaluator must be concerned with three characteristics in his plan for evaluation:

(4) Principles of Post-Secondary Education, p. 151.

a. comparative evaluation of a program, that is, the comparison of expected outcomes;
b. determination of which outcomes are due to the characteristics of the curriculum and which outcomes are brought about by student characteristics and teacher competencies;
c. determination of the cost effectiveness of the program (4).

(4) Principles of Post-Secondary Education, pp. 119-120. Also see Evaluative Research: Strategies and Methods. Pittsburgh, Pa.: American Institutes for Research, 1970, pp. 16-20.

5. The success or failure of an institutional or state-appointed researcher depends on the extent to which his/her research findings are translated into improved institutional practices.*

* See Discussion Question H in Part III.

6. So much research-based information is needed today that the real problem becomes one of establishing priorities. Research is needed to determine:
   a. the work modes of both graduates and early leavers;
   b. the differential effects of narrow- and broad-based occupational programs on students of both career and academic orientations;
   c. the differential effects of various instructional modes on students both in school and later in the world of work (4).
   d. improved manpower forecasting techniques.*

(4) Principles of Post-Secondary Vocational Education, p. 151.

* See Discussion Question I in Part III.

E. Vocational Guidance Counselor: In some settings vocational guidance personnel assume re-

sponsibility for assessing the needs of individual students, supervising the organization of information about students, supervising the organization of information about specific occupations and clusters of occupations, and serving as a resource to faculty and students in both general and vocational education programs.

1. Some state boards of vocational education have divisions for vocational guidance, with interest and ability testing, and placement and follow-up of students as a major emphasis.
2. The relationship between guidance counseling and vocational education curriculum has long been established. Since the 1938 version of the George-Deen Act, vocational education has provided financial assistance to guidance and counseling. The considerable financial support for career education today can be seen as a continuation of this relationship (9).
3. Guidance counselors would likely have more impact on curriculum decisions if it were not for several major problems:
   a. In a high school setting, counselors are often delegated routine tasks of taking daily attendance, managing the guidance staff, ordering books and supplies, and controlling discipline problems. Counselors are then held accountable for not attending to major

(9) Introduction to Trade, Industrial, and Technical Education, p. 133. See (2) Foundations of Vocational Education, pp. 156-161, for further elaboration on this topic.

functions such as placement, follow-up, and resource work for teacher and student.

b. The average student-to-counselor ratio ranges from 400-500 to 1.

c. In the past, many guidance counselors have been college-oriented and have not had the background or training to do occupational counseling (9).

4. If the bridge is to be built between the "announced" purposes and the "actual" purposes of vocational education, teachers and counselors must share the guidance and counseling function. A team approach involving the counselor, the vocational teacher, and the work experience coordinator offers great potential for enhancing the career development and career realization of students (9). *

5. Ideally the guidance counselor can be a valuable member of the curriculum management team by:

a. assisting in the analysis of employment opportunities for high school graduates;

b. developing and implementing vocational guidance that will lead qualified and interested students into the respective programs;

c. assisting students who finish programs to obtain jobs;

d. assisting in the follow-up of students as part of continuous program evaluation (9).

(9) Introduction to Trade, Industrial, and Technical Education, p. 138. For a comprehensive coverage of vocational guidance refer to: Vocational Guidance and Career Development, edited by Herman J. Peters and James C. Hansen (New York: Macmillan, 1970) and Herr, Edwin L. and Cramer, Stanley C., Vocational Guidance and Career Development in the Schools: Toward a Systems Approach (Boston: Houghton Mifflin, 1972).

(9) As above, p. 145.

* See Discussion Question J in Part III.

(9) As above, p. 142.

F. General Administrator: Vocational curriculum planning cannot take place as though it had no relation to the general curriculum of the school. From a curriculum management point of view, it is important to recognize that:

1. Vocational education is a part of the comprehensive curriculum. The occupationally competent individual also needs skills in reading, writing, speaking, arithmetic, and social relations. The general administrator is responsible for the management of the comprehensive curriculum; this automatically involves him in decisions about vocational education.
2. Although the general administrator (usually the principal) delegates his authority for directing the vocational curriculum to vocational directors, the department chairmen, or specialists, his coordination of resources is extensive and often determines the morale and attitude of the faculty and students in regard to various occupational programs (7).

(7) Vocational Education in America's Schools, pp. 18-32, for additional information on this topic.

G. Advisory Committee: The role of the advisory committee is largely determined by the vocational administrator. Advisory committees make recommendations and suggestions; they do not have decision-making authority. Their effect on vocational curriculum is determined by the extent to which administrators and teachers

utilize their reports and recommendations. The advisory committee has typically assisted in curriculum management by:

1. advising vocational educators of community needs;
2. conducting community surveys;
3. assisting in the evaluation of existing programs;
4. serving as special occupational consultants;
5. providing visibility and public relations support for vocational programs (2).

(2) Foundations of Vocational Education, pp. 87, 267-277, for related information.

H. Employers: Work experience is a vital component of vocational education curriculum content. Only through cooperation with employers and labor groups can any degree of work experience be integrated into the curriculum.

1. Employers provide an important aspect of the instructional program. They are involved in the selection and organization of training stations and are responsible for implementing the program according to the contract with the sponsoring school.
2. Employers also provide crucial information on community needs, jobs for youth and adults, estimated number of future jobs, and kinds of jobs available (2).

(2) As above, pp. 116, 117, 205-224, for supplementary material.

I. Students of Vocational Education: There is a growing emphasis on involving students in the management of the school.

1. Students have definite ideas on what should be offered in the curriculum.
2. Because students are the immediate reason for the development of a curriculum, their input, success, and evaluation is of prime importance.
3. However, students traditionally have had no formal role in curriculum management other than completing occasional follow-up forms that question their attitudes regarding the vocational programs and the individual's success resulting from these programs.
4. Sometimes students are asked to serve on advisory committees.
5. In regard to one aspect of the traditional vocational program, however, students do exercise considerable decision making: they determine the curriculum for the various vocational student organizations such as Distributive Education Club of America, Future Business Leaders of America, Future Farmers of America, Future Homemakers of America, Office Education Association, and Vocational Industrial Club of America (12).

(12) Leadership in Administration of Vocational and Technical Education, Chap. 9. Also see (2) Foundations of Education, pp. 166-176, for related information.

Figure 1

CURRICULUM MANAGEMENT FUNCTIONS IN WHICH EACH TYPE OF EDUCATOR TYPICALLY HAS MINIMAL (M), SOME (S), OR EXTENSIVE (E) INVOLVEMENT*

	1. Needs Assessment	2. Program Design and Development	3. Selection and Organization	4. Coordination of Human Resources	5. Implementation	6. Research and Evaluation
Administrators						
Vocational	E	E	E	E	E	E
General	M	M	M	E	S	M
Specialists						
Curriculum Specialist	E	E	E	E	E	E
Research and Evaluation Specialist	E	S	S	M	M	E
Guidance Counselor	S	S	M	S	E	S
Teachers	S	S	E	S	E	S
Other Groups or Individuals						
Advisory Committees	S	S	S	S	S	S
Employers	E	S	S	S	E	S
Students	E	M	M	M	E	E

* The purpose of this chart is to summarize the degree of involvement of educational personnel in curriculum management as it typically exists in the 1970s. The chart is a general illustration and does not or will not match specific situations and conditions. By reviewing this chart the student should gain a broad understanding of the significant roles of educational personnel in the major functions of curriculum management.

J. Study Activities

Based on your reading of the content outline and any additional references as suggested, complete the following activities.

1. In your opinion, who are the three most likely personnel to have extensive involvement in vocational education curriculum management? Provide justification for your answer.

2. Rank all of the following personnel in order of extensiveness of involvement in each function of vocational education curriculum management.

   Occupational advisory committee
   Local director of vocational education
   Vocational guidance counselor employer
   Vocational student
   Vocational assistant to the principal
   General administrator (principal)
   State supervisor of distributive education
   Vocational teacher
   College counselor
   Vocational research and education specialist

3. Why is it important to conduct follow-up studies of the graduates of vocational education programs as a function of curriculum management?

4. Describe one disadvantage of relying solely upon follow-up studies to evaluate vocational education programs.

5. Which statement provides the best philosophical base for curriculum planning in vocational education?

   _____a. Be consistent and complementary with that of the total school curriculum.
   _____b. Emphasize the psychological and performance considerations unique to vocational education.
   _____c. Be firmly established by educators before other groups are involved in specific curriculum planning.

6. When should a new curriculum be adopted into the school offerings?

   _____a. As soon as it has been developed under the direction of a skillful curriculum specialist.

   _____b. As soon as it has been approved by appropriate curriculum groups and advisory committees.

   _____c. When the new curriculum has withstood the test of normal teaching situations and evaluation shows positive results.

7. Name one factor which necessitates the frequent revision of vocational education curricula.

8. What is the major similarity between using job analysis and specifying behavioral objectives as a basis for curriculum design?

9. What is the current trend in vocational education in regard to the need and demand for curriculum specialists?

10. Explain two advantages and two disadvantages of concentrating responsibility for curriculum management under one curriculum specialist.

11. List the major similarities and differences in curriculum management at the various educational levels:

    Community college

    Comprehensive high school

    Specialized vocational high school, area vocational school, or technical institute

12. Suppose you are a department chairman for vocational education in a large comprehensive high school. Three such high schools are in your district. The district plans to hire a curriculum specialist in vocational education. You are asked for your views regarding the qualifications and duties that should be included in the job description. Fill out the job description form provided, indicating the qualifications and duties of the curriculum specialist.

Job Description for

Curriculum Specialist, Midtown Regional Occupational Center

TRAINING (degrees as well as content knowledge)	EXPERIENCE	PERSONAL QUALIFICATIONS	DUTIES

Wrapup Activity

NOTE: To meet the basic requirements of this module, select one of the following activities and complete it as directed. If you wish to gain additional credit beyond the basic requirements, you may choose a second activity to complete. Consult with your instructor first if you wish additional credit.

1. The purpose of this activity is to determine the nature of the roles of persons who are involved in vocational education curriculum management at the state level. Contact your State Department of Education and inquire as to how vocational education curriculum management functions are organized and carried out at the state level. Write a 4-5 page paper describing the types of persons within the State Department who are involved in vocational education curriculum management and the nature of their activities.

2. The purpose of this activity is to examine differences in the involvement of various types of educators in curriculum management that can be observed in different vocational education agencies. Select two agencies in your area that offer vocational education. Collect information as to the general purpose and structure of each agency, the type of roles involved in curriculum management for that agency, and the nature of each role's involvement. Write a 4-5 page paper concerning the differences in vocational education curriculum management roles and involvement in the two agencies as a function of differences in their structure and purpose.

3. Identify two persons holding different roles who both work in the same vocational education agency. Select one curriculum management function and collect information concerning the involvement of each of the two persons in that curriculum management function. (You may wish to interview each person separately, give each a questionnaire,

or hold a joint discussion with them.) Make an analysis which compares the nature of each person's involvement in the selected curriculum management function. Finally, compare and contrast the nature of the involvement of these two persons in the selected function as a result of their different roles. Summarize the results of your analysis in a 4-5 page paper.

4. Select one of the following books to read and summarize. Present your summary in a 4-5 page paper or in a 15-minute oral presentation to the class.

Wenrich, R. C., and Wenrich, J. W. Leadership in Administration of Vocational and Technical Education. Columbus, Ohio: Charles E. Merrill Publishing Co., 1974.

McMahon, Gordon G. Curriculum Development in Trade and Industrial and Technical Education. Columbus, Ohio: Charles E. Merrill Publishing Co., 1972.

Taba, Hilda. Curriculum Development: Theory and Practice. New York: Harcourt, Brace and World, Inc., 1962.

Till, W. V., ed. Curriculum: Quest for Relevance. New York: Houghton Mifflin Company, 1971.

Bruner, J. S. The Process of Education. New York: Vintage Books, Random House, Inc., 1963.

Select another book of your choice upon the approval of your instructor.

Part III:

Group and Classroom Activities

PART III

GROUP AND CLASSROOM ACTIVITIES

Classroom Activities

1. Ask students to take 15 minutes of class time to formulate any questions they have in regard to curriculum management.

   Then take another 15 minutes to categorize these questions under the following headings:

   1. questions about needs assessment;
   2. questions about program design and development;
   3. questions about selection and organization of curriculum;
   4. questions about coordination of human resources in curriculum management;
   5. questions about program implementation;
   6. questions about research and evaluation.

   Write the headings and corresponding questions on the blackboard or on an acetate sheet for use with the overhead projector so that everyone can see and take part in the discussion.

   Now ask students to form six groups and assign one category of questions to each group. Explain to the students that they should complete the answers to these questions at the halfway point of the module. At this time they should provide the other groups with copies of the answers to questions for their particular category. Students may use any means to answer their questions: classroom discussions, lectures, readings, library work, small group discussions, etc.

2. Select a group of students to be responsible for recruiting the following resource people to speak to the class on their respective roles in curriculum managment:

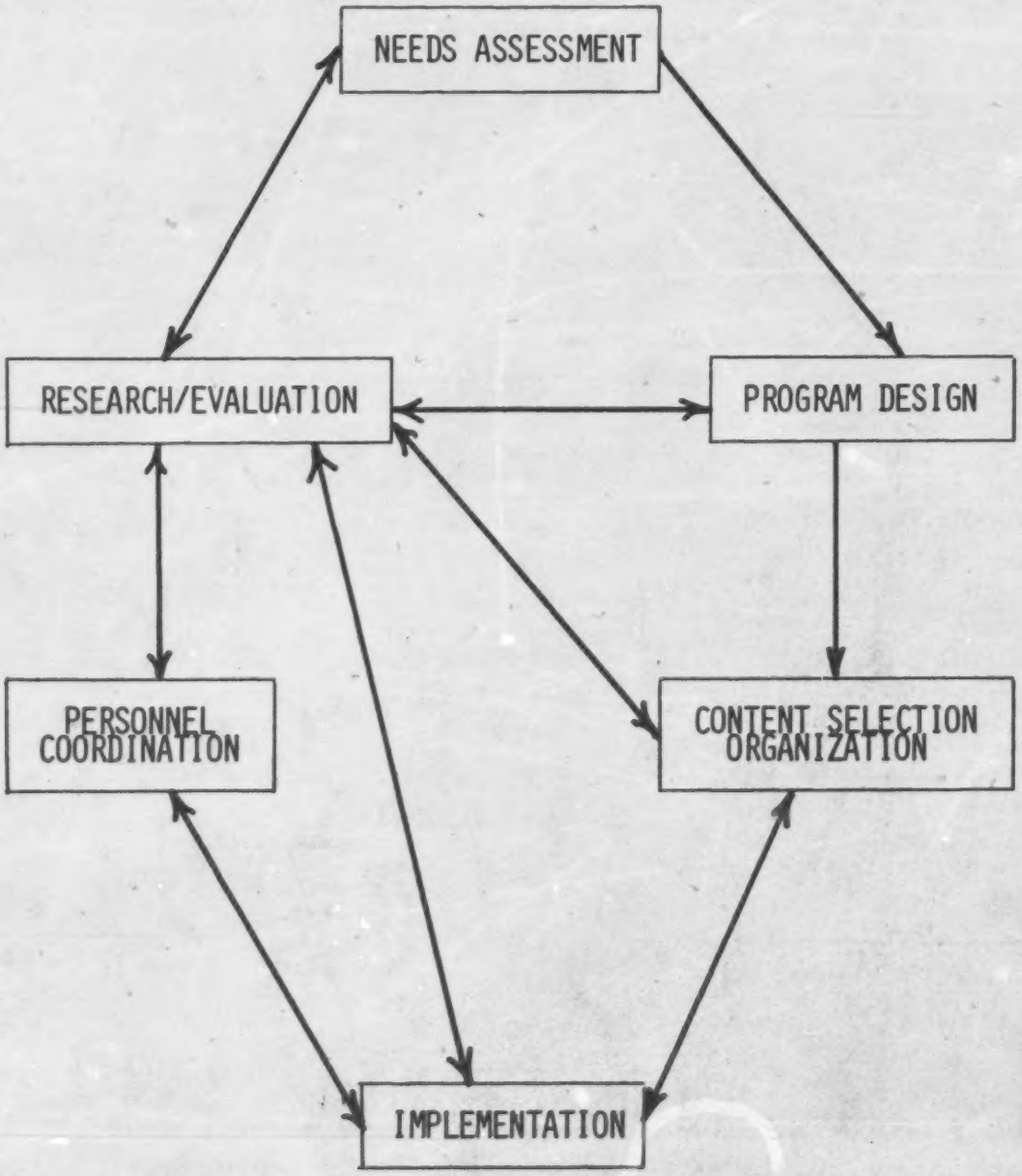
    1. local vocational director;
    2. dean of occupational education at a local community college;
    3. curriculum coordinator/specialist in a high school, district office, or university;
    4. vocational department chairman or head in a comprehensive high school;
    5. other personnel suggested by students.

    These resource people might be asked to speak individually or as a group. Suggest that the students formulate specific questions to ask the speakers. Such questions might include: How do you define curriculum management? Who is primarily responsible for curriculum management? What are your specific activities in regard to curriculum managment? What action might improve vocational education curriculum management in your particular setting?

3. This activity has three basic parts. You may wish to complete the entire activity during one class session or you may want to spend several class sessions completing the three parts.

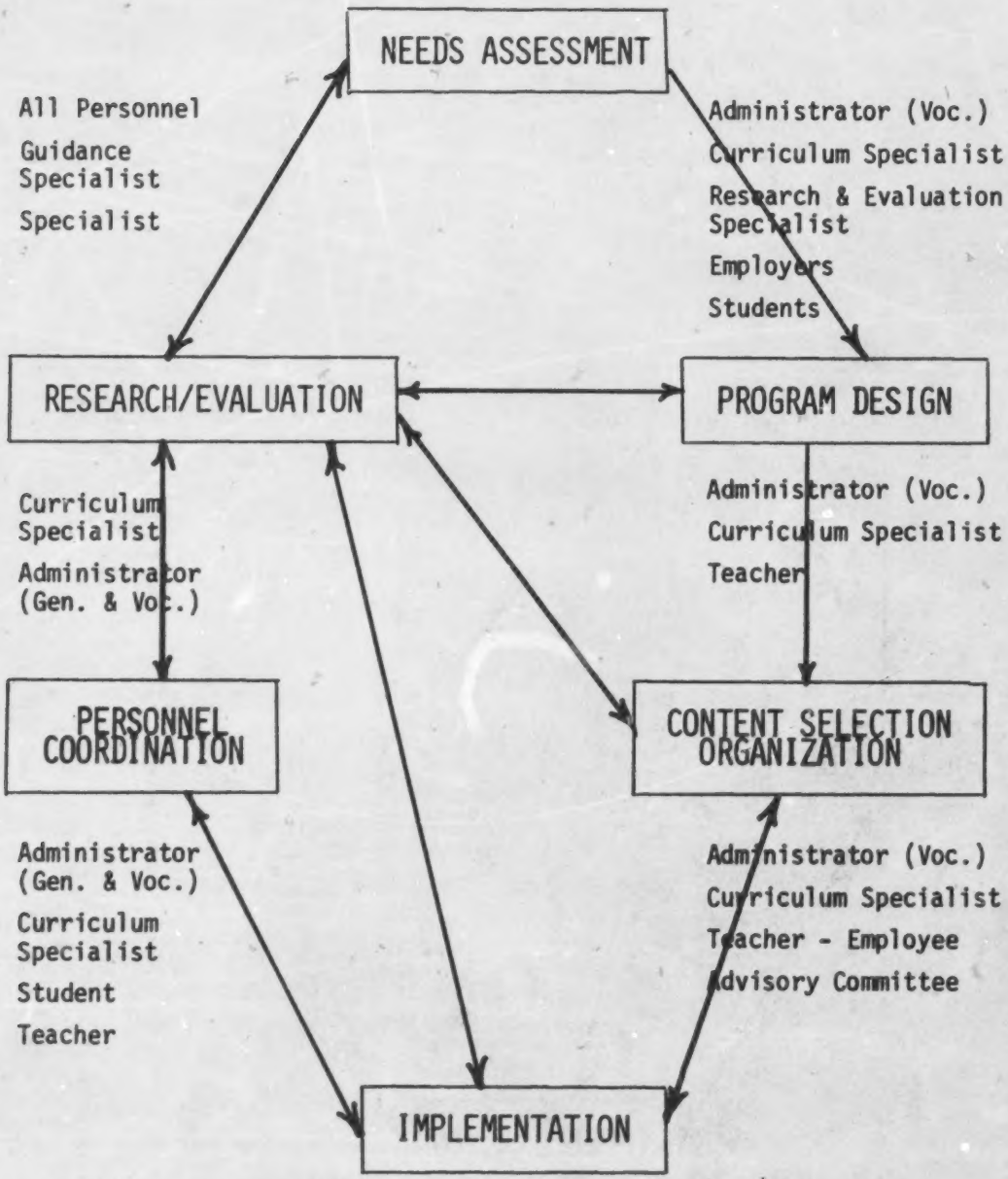
Part 1

Design a flow chart showing the relationship among all functions of curriculum management. Do this on the blackboard or on the overhead projector so that everyone can participate.



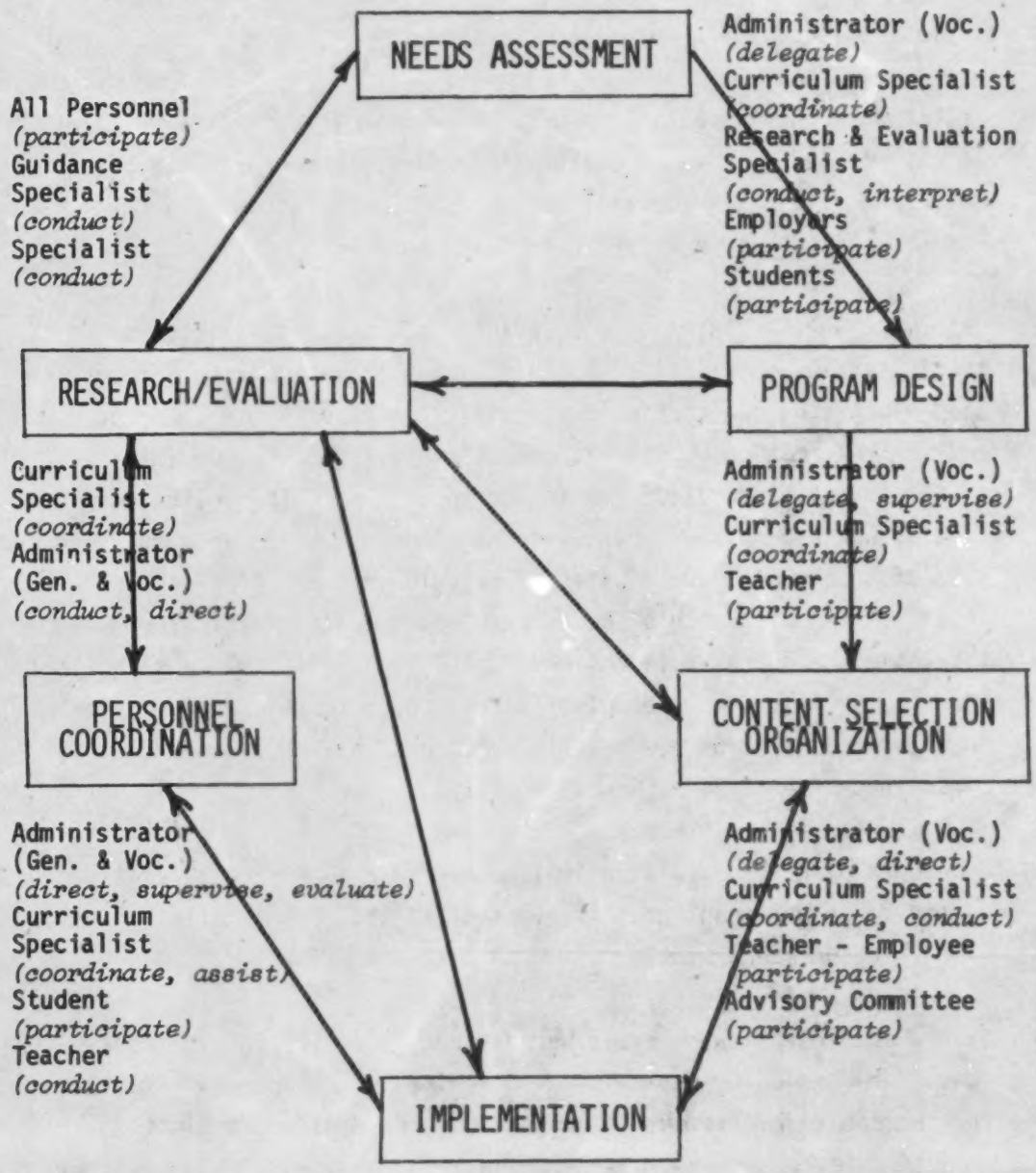
Part 2

To the flow chart developed by the class in Part 1, add the personnel most involved with each function.



Part 3

To the flow chart developed in Parts 1 and 2, add the specific tasks of each type of personnel shown on the chart. Use action verbs such as coordinate, supervise, delegate, make decisions, teach, demonstrate, evaluate, etc., to describe these tasks.



Activities for Additional Credit

NOTE: These activities are designed for the student who wishes to obtain additional credit beyond the basic requirements of this module. You may choose to write a paper on one of these activities or discuss the activity with the instructor, or you may select some other method to complete the activity.

1. Select an actual vocational course or program that is offered by an agency located near you. Collect information concerning the way in which one of the six functions of curriculum management was (or is being) carried out in relation to that course or program.

2. Determine whether there is a vocational education curriculum specialist in your local school district. If so, collect information concerning the curriculum specialist's major duties. If not, collect information which describes the skills and responsibilities of a vocational education curriculum specialist. The following studies would be excellent resources: Albert J. Pautler, Jr. "The Role of the Vocational Education Curriculum Worker." Buffalo, New York: State University of New York, Department of Curriculum Development and Instructional Media, 1974, pp. 4-10. Ivan Valentine, "Curriculum materials specialist as a support to teacher education in the development of new materials." Fort Collins, Colorado: Department of Vocational Education, 1974.

3. Develop a plan that could be implemented by a vocational education agency to ensure meaningful involvement of students in all aspects of curriculum management.

4. Select and interview a person who has been involved in vocational education curriculum management. Describe the nature and extent of this person's involvement in each curriculum management function.

Discussion Questions

A. How reliable is manpower forecasting for purposes of curriculum planning?

(Many instances of inaccurate forcasting can be cited; for example, the emphasis on science and engineering in the 1950s and 1960s resulted in a temporary oversupply of Ph.D. scientists and engineers in the early 1970s; also, faulty forecasting of the need for social studies teachers led to an oversupply of teachers in this field as early as 1968. Techniques for manpower forecasting are improving, but if the process is to become more reliable, it must also be constant and continuing.) (12)

B. How is information for curriculum development generally derived?

(Possible discussion points might include:
1. Information is based on tradition--what has worked in the past.
2. Information is based on the needs of individuals and society.
3. Information is based on research and evaluation.
4. Information is based on prevailing views of the purpose of education.
5. Information is based on the needs and purposes of new technology.
6. Information is based on knowledge and theories about the nature of learning.
7. Information is based on short-term employment priorities.
8. Information is based on cultural priorities.
9. Information is based on assumptions, beliefs, and personal preferences (2).

Information may also be based on input from advisory committees and on current practices of business and industry.)

C. Have you ever heard people say that job analysis is becoming outmoded and impractical in our "machine-oriented" and "technologically advanced" society?

(Technology typically eliminates some jobs and creates others, and changes in technology tend to increase the need and demand for training. The analysis of present-day occupations brings industrial training up to date and provides for continuous evaluation of programs.)

D. What might be some specific examples or explanations of the concept approach?

(Consider the following: the best way to create interest in a subject is to make it worthwhile to know about, which means to make the knowledge usable in one's thinking or acting in situations beyond the learning situation. Does a student need to know the fundamentals of problem solving techniques before he can do a research report? What methods of exercise within any given field are likely to give the student a sense of intelligent mastery over the material? Does a person need to know the history of American agriculture to become a horticulturist? How much mathematics must a person understand to become a competent carpenter or auto mechanic?)

E. What is the relationship of a curriculum design to the practical and administrative conditions under which it is supposed to function?

(Generally, curriculum implementation is limited by the conditions under which it is introduced. Installment of curriculum plans may be contingent on the following: time, facilities, personnel, school organization.)

F. What are some possible problems that might be considered by vocational education research, the results of which might provide valuable insight into curriculum management?

(Answers might include: How do different professionals seek, obtain, and utilize information about vocational education? What happens to graduates three, four, and ten years later? What job opportunities are there for high school dropouts? What job opportunities are there for handicapped persons?)

G. Is "evaluation" synonymous with "measurement"?

(Measurement is only one part of evaluation. Measurement refers to the process of obtaining a quantified representation of some specific characteristics. While evaluation may use "measurement techniques," its main concern is with a much broader profile of characteristics and achievements.)

H. How widely used are cost effectiveness studies? Can you give examples of some? What are some of the reasons cost effectiveness studies are not more widely used?

(The fact that only seven cost-benefit analysis studies were reported by Little in his Review and Synthesis of Research on the Placement and Follow-up Vocational Education Students, 1970, suggests that until 1970 this approach was not widely utilized. A number of inherent difficulties exist in assigning dollar values to all the outcomes of an occupational curriculum.) (4)

I. Is there a research and evaluation specialist in your school or college? What questions might be asked of him if he were to make a presentation before the class?

(Example: What are the present research projects being conducted in relation to vocational education? What are some recent findings resulting from these research projects? How are these research findings used? By whom?)

J. Looking back on the educational settings of which you have been a part, how was the guidance counselor generally occupied?

(A study conducted in 1967 indicated that the typical counselor was involved ten percent of the time in keeping records, fifty percent of the time in conducting interviews, eight percent of the time in administering tests, two percent in handling disciplinary problems, nineteen percent in consulting with teachers, and eleven percent in other general activities.) (9)

Part IV:

Student Self-Check

PART IV
STUDENT SELF-CHECK

GOAL 2.1

1. Briefly define the term "curriculum management." (2.11)

2. Which of the following activities describes a major function of curriculum managment? (2.12)

   _____a. writing behavioral objectives
   _____b. reading the results of a community manpower survey
   _____c. program design and development

3. Which of the following activities describes an important aspect of a major curriculum management function? (2.13)

   _____a. program design and development
   _____b. formulation of behavioral objectives
   _____c. diagnosis of needs

4. List the six major functions of curriculum management. (2.12)

For Questions 5 through 9, match the general term in the left-hand column with the appropriate activity in the right-hand column. (2.13)

5. evaluation	a. designing goals and objectives
6. implementation	b. reading a professional journal for specific information
7. program development	c. describing job placement effectiveness
8. research	d. reviewing employment statistics
9. diagnosis of needs	e. translating plans into practice

10. What is the major consideration for the selection and organization of vocational education content, training, and materials? (2.13)

11. What is occupational competency? List at least three points. (2.14)

12. What are four different approaches to selecting and organizing vocational content, materials, and training? (2.14)

13. Describe four different approaches to the selection and organization of content for vocational programs by listing at least two important points under each. (2.14)

GOAL 2.2

14. Who are the professional educational personnel likely to be involved in vocational education curriculum management? Include at least five personnel. (2.21)

15. Other than professional personnel, who is likely to be involved in curriculum management to some degree? Include at least three populations. (2.21)

16. Rank the four most important personnel in curriculum management. (2.22)

For Questions 17 through 25, decide which type of personnel each statement describes. Limit your response to one type of personnel for each statement. (2.23)

17. Translates program plans into classroom practice.

18. Has ultimate responsibility for vocational program outcomes and success.

19. Provides advice and suggestions on program development as requested by administrators or teachers.

20. Represents the outcome of the program.

21. Has the major responsibility of operationalizing and coordinating curriculum management functions.

22. Can exercise considerable influence on course enrollment.

23. Provides results of placement efforts, student achievement, effectiveness of specific techniques or procedures.

24. Has responsibility for overall curriculum managment.

25. Provides learning stations for on-the-job job skill development.

26. Identify three contributions a curriculum specialist can make in vocational education curriculum management. (2.24)

For Questions 27 through 30, determine whether the statements are true or false. (2.25)

27. _____ One disadvantage of concentrating the responsibility for a vocational agency's curriculum management functions under one curriculum specialist is that the specialist does not have the ability to develop behavioral objectives for different areas of study.

28. _____ One advantage of concentrating the responsibility for a vocational agency's curriculum management functions under one curriculum specialist is that the specialist has a more comprehensive background in curriculum and more time to spend on curriculum development than most of the other staff members.

29. _____ A curriculum specialist should have the ability to make competent judgments as to the validity and importance of content material. In order to do this, the specialist must recognize the importance of effectively using advisory groups to determine the essentials of content material and the validity of objectives.

30. _____ The curriculum specialist's job is one of instructing, writing, and evaluating rather than one of coordinating, facilitating, and managing.

31. What educator is generally charged with the responsibility for vocational education curriculum management in a comprehensive high school? (2.26)

32. What educator is generally charged with the responsibility for vocational education curriculum management in a community college? (2.26)

Part V:

Appendices

PART V

APPENDICES

Appendix A:

Possible Study Activity Responses

GOAL 2.1

1. Dictionary of Education--Curriculum is a general overall plan of the content, or specific materials and activities of instruction, that the school offers the student by way of qualifying him for graduation, certification, or for entrance into a professional or vocational field (5).

   Webster's New Third International Dictionary--Curriculum is the whole body of courses offered by an educational institution or one of its branches.

   Curriculum Development: Theory and Practice, by Hilda Taba--A curriculum usually contains a statement of aims and specific objectives; it indicates some selection and organization of content, and it either implies or manifests certain patterns of learning and teaching; it includes a program of evaluation of the outcomes.

   Curriculum management--the process of organizing, coordinating and controlling the course offerings of the school, including the (a) diagnosis of needs; (b) formulation of objectives; (c) selection of content; (d) organization of content; (e) selection and organization of learning experiences; (f) identifying evaluation needs and means.

2. - needs assessment
   - design and development of programs
   - selection and organization of program content
   - coordination of human resources
   - program implementation
   - research and evaluation

3. Needs Assessment

   a. Determine societal, community, and/or employees requirements and needs.
   b. Determine individual student needs.
   c. Determine needs of special groups.
   d. Conduct surveys, interviews, and literature searches.

Program Design and Development

a. Recommend programs and alternatives based upon needs.
b. Specify program goals and objectives.
c. Specify course goals and objectives.

Selection and Organization of Program Content

a. Select and organize on the basis of its contribution to occupational competency.
b. Select and organize content according to an occupational analysis approach.
c. Select and organize content according to the cluster approach, the concept approach, or the functions of industry approach.

Coordination of Human Resources

a. Recruit and select personnel.
b. Conduct pre-service and inservice orientation.
c. Propose a personnel management system.

Program Implementation

a. Organize personnel for maximum efficiency.
b. Encourage participation and involvement in program improvement, development, and change.
c. Provide for adequate facilities and funds.
d. Develop a strategy for all of the above.

Research and Evaluation

a. Determine what should be evaluated.
b. Determine alternative approaches for evaluation.
c. Provide a plan for using research and evaluation data.

4. The major purpose of vocational education programs is to develop the occupational competency of students.

5. Thompson defines occupational competency as the development of job skills and occupational flexibility; the understanding of job relationships; expectation of and knowledge of how to seek new employment when present job becomes displaced; getting along with fellow workers.

6. Occupational analysis--an analytical approach that examines and reports the nature of work, the tasks, the requirements, and the setting of a specific occupation so that instruction can be designed around such elements.

Cluster (family of occupations) approach--Combines occupational analysis with a generalized, more comprehensive inclusion of occupations that have similarities so that instruction for more than one occupation can be emphasized.

7. An example of one appropriate answer follows:

   The "functions of industry approach" and the "concept approach" have the advantage of teaching related job skills to prepare people for several different occupations as well as facilitating other aspects of occupational competency. Occupational analysis remains an important ingredient to any approach.

8. You might include some of the following suggestions in your answers:

   - assessment of awareness of manpower needs (national, state, and local)
   - assessment of employment statistics and employer requirements
   - assessment of student interest
   - analysis of current program status
   - assessment of program effectiveness
   - analysis of projected program needs
   - consideration of program constraints such as duplication, time requirements, facilities, placement, cost, etc.

9. Some components of curriculum management that have not been specifically mentioned include:

   - planning for cumulative learning (providing for a progressively more demanding performance);
   - planning for continuity and reinforcement;
   - planning for integration (relating one field to another);
   - planning for the provision of variety in modes of learning.

10. d
    e or d
    f
    c
    b

GOAL 2.2

1. Vocational administrators: These people have ultimate responsibility for process, progress, and outcomes. They may delegate much responsibility to others, but their involvement is crucial due to the responsibility factor.

   Curriculum specialist: This role may fall under a variety of job titles such as dean of occupational instruction, department chairman, administrative assistant, but the main function of this role is one of dealing with curriculum--its coordination and management.

   Teachers: These professionals hold ultimate responsibility for management of instruction, classroom atmosphere, and program installment. Curriculum in its present form would not be feasible without their import and participation.

2. Compare your answer with Figure 1--Curriculum Management Functions in which Each Type of Educator Typically Has Minimal (M), Some (S), or Extensive Involvement. Figure 1 is located on page 36 of this guide.

3. Follow-up studies of vocational graduates:
   - provide information on the appropriateness of training for job effectiveness;
   - enable modification of existing programs to better meet needs of students and employers;
   - reflect quality and effectiveness of program and placement efforts;
   - provide potentially important data for future program design, development, implementation, and content selection and organization.

4. Other evaluation techniques are also valuable such as performance on the job, satisfaction with the job, employer recommendations and criticism, etc. Also, current needs of students and faculty may be different from those of past groups.

5. a

6. c

7. - changing socioeconomic conditions
   - technological advances
   - program evaluation findings which indicate necessary changes

8. Both methods specifically describe critical tasks in performance lessons that students must be able to do either on the job or as a result of instruction, or both.

9. According to Barlow, the need for highly trained curriculum personnel is so critical that emphasis must be given to preparing leaders from among educators who have potential but lack the necessary background. Evans has also indicated the increasing need for vocational education curriculum specialists in his book, Foundations of Vocational Education.

10. Advantages

The curriculum specialist should have greater knowledge and more skills in curriculum development, which should make the resulting curriculum better.

The curriculum specialist can spend more time and effort on development, leaving teachers and other administrators free to concentrate on functions that are more central to their own roles.

Disadvantages

The hiring of a curriculum specialist would most likely result in changing roles among administrative and instructional staff, which may be resented.

If a vocational education curriculum specialist does not obtain sufficient input from a variety of perspectives, the resulting curricula may overly reflect the specialist's particular biases or limitations.

11. Community college: Generally a dean for occupational education serves as the curriculum specialist and reports to the president or an assistant dean who in turn is responsible to the dean of instruction. The dean generally serves on the president's administrative council and has a number of division and/or department directors on his or her team to assist in curriculum management.

Comprehensive high school: Usually responsibility for curriculum management rests with the principal and department heads in vocational areas (e.g., business education and industrial education). This is generally not enough to involve all students preparing for employment. Thus, a leader on the principal's staff in the role of curriculum specialist for occupational education would help teachers of all subjects see the relationship of their subjects to occupations and would assist them in developing learning experiences relevant to needs of employment-bound youth.

Specialized vocational high school, area vocational school, or technical institute: Administrative responsibility for vocational/technical education is less complex here since the faculty and administrative staff are all working toward the goal of preparing youth for employment.

12. (See the completed Job Description for Curriculum Specialist, Midtown Regional Occupational Center.)

Job Description for

Curriculum Specialist, Midtown Regional Occupational Center

TRAINING (degrees as well as content knowledge)	EXPERIENCE	PERSONAL QUALIFICATIONS	DUTIES
-Bachelor's degree -Advanced degree (M.A.) -Some vocational education training, e.g., certificate Knowledge of: -curriculum theory -philosophy of vocational education -educational psychology and sociology -performance objectives -evaluation -program planning -vocational education subject areas -teaching methodology and materials -education legislation as related to vocational education and ROC's	-work experience outside of education -teaching experience -experience in vocational curriculum development -experience in developing procedures for measuring learner's progress and providing learner with feedback -experience in design and conduct of research programs related to curriculum development	-ability to write -ability to work with others -initiative, creativity -enthusiasm -ability to listen and value others' input -acumen and acquaintance with dynamics of social-political action in order to implement curriculum change and overcome resistance to change	-help staff develop quality curriculum -plan and conduct staff development sessions -develop and implement accountability measures -work with advisory committees, boards, other community groups -write grant proposals

Appendix B:
Possible Self-Check Responses

GOAL 2.1

1. Briefly define the term "curriculum management." (2.11)

   Curriculum management is the process of organizing, coordinating, and controlling the course offerings of a school, including diagnosis of needs, formulation of objectives, selection of content, organization of content, selection and organization of learning experiences, and identification of evaluation needs and methods.

2. Which of the following activities describe a major function of curriculum management? (2.12)

   ____a. writing behavioral objectives
   ____b. reading the results of a cummunity manpower survey
   _x_c. program design and development

3. Which of the following activities describe an important aspect of a major curriculum management function? (2.13)

   ____a. program design and development
   _x_b. formulation of behavioral objectives
   ____c. diagnosis of needs

4. List the six major functions of curriculum management. (2.12)

   (1) needs assessment
   (2) program design and development
   (3) content selection and organization
   (4) coordination of human resources (personnel management)
   (5) program implementation
   (6) program research and evaluation

For Questions 5 through 9, match the general term in the left-hand column with the appropriate activity in the right-hand column. (2.13)

5. evaluation	a. designing goals and objectives
6. implementation	b. reading a professional journal for specific information
7. program development	c. describing job placement effectiveness
8. research	d. reviewing employment statistics
9. diagnosis of needs	e. translating plans into practice

5. c

6. e

7. a

8. b

9. d

10. What is the major consideration for the selection and organization of vocational education content, training, and materials? (2.13)

to organize and select materials and experiences that facilitate the development of occupational competency

11. What is occupational competency? List at least three points. (2.14)

Occupational competency is possessing ability in the following areas: performing general and specific job skills; understanding relationships among different jobs; desiring and expecting to work; knowing how to seek employment or new employment; getting along with fellow workers.

12. What are four different approaches to selecting and organizing vocational content, materials, and training? (2.14)

(1) integrated approach
(2) job analysis approach
(3) cluster approach (families of occupations)
(4) functions of industry approach
(5) concept approach

13. Describe four different approaches to the selection and organization of content for vocational programs by listing at least two important points under each. (2.14)

The student answer is correct if it includes any four of the following:

a. Job analysis approach--an analytical approach that obtains information about specific occupations from workers, supervisors, or occupationally qualified teachers in order to determine exact course content for skill development; a common and consistently used approach in vocational education; can be used in common with other approaches; provides a logical organization that facilitates systematic teaching and learning.

b. Cluster approach--sometimes called families of occupations approach; a method for preparing youth for entry into a broad family of occupations rather than for one specific occupation; usually combined with specific training in one or more occupations for students ready for such training; examples of clusters are agribusiness and natural resources, business and office, communications and media, construction, etc.

c. Functions of industry approach--prepares workers for functions performed within a specific industry; focuses on the purposes of industry rather than on the activities performed by an individual worker within that industry; examples of functions might include public relations functions, service functions, processing functions, office practice functions, etc.; the rationale for this approach is that workers need different areas of competency to perform well in any single function, and that these areas of competency should form the basis of the curriculum.

d. Concept approach--developed in the 1960s by Jerome Bruner; emphasizes the importance of the structure of subject matter; the curriculum of a program or course should be determined by identifying the fundamental principles (or the basic ideas) of the subject matter of the course or program; in order for a person to be able to make generalizations or to transfer his learning to new situations, he must understand the general nature of the subject with which he is dealing.

e. Integrated approach--one of the earliest techniques used in vocational education, typically used in agriculture classes; accumulates a cross-section of subject matter in a given field and organizes it into a teaching sequence; the sequence usually consists of units, lessons, activities, specific tasks.

GOAL 2.2

14. Who are the professional educational personnel likely to be involved in vocational education curriculum management? Include at least five personnel. (2.21)

    (1) vocational administrator (dean, local director, supervisor)
    (2) vocational curriculum specialist
    (3) research and evaluation specialist
    (4) guidance counselor
    (5) teacher, instructor (department chairman)
    (6) general administrator (principal, vice principal)

15. Other than professional personnel, who is likely to be involved in curriculum management to some degree? Include at least three populations. (2.21)

    (1) students
    (2) advisory committees
    (3) employers
    (4) unions and other trade groups

16. Rank the four most important personnel in curriculum management. (2.22)

    (1) vocational curriculum specialist (may include occupational deans, vocational school principals, or department chairmen)
    (2) vocational administrators (may include local directors, supervisors, vocational school principals, deans)
    (3) teachers (instructors, department chairmen)
    (4) evaluation specialist (research and evaluation specialist)

For Questions 17 through 25, decide which type of personnel each statement describes. Limit your response to one type of personnel for each statement. (2.23)

17. Translates program plans into classroom practice.

vocational teacher

18. Has ultimate responsibility for vocational program outcomes and success.

vocational administrator

19. Provides advice and suggestions on program development as requested by administrators or teachers.

advisory committee

20. Represents the outcome of the program.

student

21. Has the major responsibility of operationalizing and coordinating curriculum management functions.

curriculum specialist

22. Can exercise considerable influence on course enrollment.

guidance counselor

23. Provides results of placement efforts, student achievement, effectiveness of specific techniques or procedures.

evaluation specialist
(research and evaluation specialist)

24. Has responsibility for overall curriculum management.

general administrator (principal)

25. Provides learning stations for on-the-job job skill development.

employer

26. Identify three contributions a curriculum specialist can make in vocational education curriculum management. (2.24)

The student answer is correct if it includes any three of the following:

- The curriculum specialist most likely has greater knowledge and skills in curriculum development, which should make the resulting curricula better.
- The curriculum specialist can spend more time and effort on development, leaving teachers and other administrators free to concentrate on functions that are more central to their own roles.
- The curriculum specialist should have the ability to design and conduct research programs that will assist in testing and evaluating the materials in terms of the end results.
- The curriculum specialist should have a keen perception of staff, which helps overcome inertia or resistance to change in implementing curriculum plans.

For Questions 27 through 30, determine whether the statements are true or false. (2.25)

27. F One disadvantage of concentrating the responsibility for a vocational agency's curriculum management functions under one curriculum specialist is that the specialist does not have the ability to develop behavioral objectives for different areas of study.

28. T One advantage of concentrating the responsibility for a vocational agency's curriculum management functions under one curriculum specialist is that the specialist has a more comprehensive background in curriculum and more time to spend on curriculum development than most of the other staff members.

29. T A curriculum specialist should have the ability to make competent judgments as to the validity and importance of content material. In order to do this, the specialist must recognize the importance of effectively using advisory groups to determine the essentials of content material and the validity of objectives.

30. F The curriculum specialist's job is one of instructing, writing, and evaluating rather than one of coordinating, facilitating, and managing.

31. What educator is generally charged with the responsibility for vocational education curriculum management in a comprehensive high school? (2.26)

The local director of vocational education is responsible at the macro level.
Within individual schools, the principal and vocational education department chairperson are charged with this responsibility.

32. What educator is generally charged with the responsibility for vocational education curriculum management in a community college? (2.26)

Usually a dean of occupational education is charged with this responsibility.

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